UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/703,399	08/26/1996	TSUNEAKI KURUMIDA	862.811-CI	7850

5514   7590   07/14/2004

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EXAMINER
HONG, STEPHEN S

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>4/19/04</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *125,128-130,132,133 and 137-140* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *125, 128, 129, 130, 132, 133, 137-140* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications: amendment and RCE filed on April
19, 2004 to the application filed 8/26/96 which is a FWC of the application Ser. No.
08/155,656 filed 11/22/93; prior art filed 3/1/99.

2.   In the amendment claims 124, 126, 131 and 134 have been canceled, and
claims 137-140 have been added. Accordingly, claims 125, 128, 129, 130, 132, 133,
137-140 are pending in this case. Claims 137-140 are independent claims.

Priority

3.   Receipt is acknowledged of papers submitted under 35 U.S.C. § 119, which
papers have been placed of record in the file.

Drawings

4.   This application has been filed with informal drawings which are acceptable for
examination purposes only. Formal drawings will be required when the application is
allowed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 125, 128, 129, 130, 132, 133, 137-140 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out and distinctly

claim the subject matter which applicant regards as the invention.

Per claim 128, the claimed limitation "the plurality of vector data can include

vector data indicating a straight line..." is indefinite, since the term "can" does not

necessarily require the "vector data indicating a straight line" to be included.

Per independent claims 137-140, the claimed feature of feature of "at least one of

the outline points having different vector data in conjunction with weight value in the

same character size" is indefinite, since it is unclear from what "the outline points [have]

different vector data."

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
>
> or described as set forth in section 102 of this title, if the differences between the
>
> subject matter sought to be patented and the prior art are such that the subject
>
> matter as a whole would have been obvious at the time the invention was made
>
> to a person having ordinary skill in the art to which said subject matter pertains.
>
> Patentability shall not be negatived by the manner in which the invention was
>
> made.

6.   Claims 125, 128, 129, 130, 132, 133, 137-140 are rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Seto, U.S. Pat. No. 5,398,311, 3/95 (filed 2/88) in

view of Kokunishi et al., U.S. Pat. No. 4,897,638, 1/90 and Sakurai, U.S. Pat. No.

5,562,350, 10/96 (filed 4/89).

As per claims 137-140 and 125, Seto discloses the following claimed elements in

an outline forming apparatus:

- a storage medium for storing a plurality of coordinate data, including a

coordinate datum indicating a first outline point of a pattern corresponding to a first

weight value and a coordinate datum indicating a second outline point of a pattern

corresponding to a second weight value, said second weight value indicating a weight

value at which vector data change (col.5, line 12, "A character pattern ...is expressed by

a dot train P0, P1, P2 ...." and col.3, line 2, "... reference character data is stored as

coordinate point information on contours and which is provided arithmetic operating

means ...[and] is enlarged or reduced in accordance with designated output size."; also see FIG.2B and col.5, lines 36-51),

     - inputter for inputting weight information indicating a desired weight of an outline of a pattern to be generated (col.5, line 55, "the output size designated by the keyboard ...and mouse...");

     - a calculation unit for generating an outline of the pattern having the weight indicated by the weight information input by said input means, said outline being generated from outline points which are obtained by moving the basic outline points based on said weight information, the coordinate information and the movement information (col.3, lines 6-20, "...with designated output size, the coordinate point information indicative of the main outer shape is first subject to arithmetic operation for enlargement of reduction by using the coordinate value information as the absolute values....").

However, Seto does not disclose using an acquiring unit, arranged for acquiring coordinate and vector data corresponding to the weight value input by said inputter, from said storage medium, by referring to the identification information, where the weight value indicates the thickness of the pattern in the same font size. Furthermore, Seto does not appear to teach the newly claimed feature of at least one of the outline points having different vector data in conjunction with weight value in the same character size.

As per the missing limitations, Kokunishi discloses an outline forming system using moving the control points (see FIG.5), using the movement information of the points with respect to the different weight (col.3, lines 33-40) and that the weight value indicates the thickness of the pattern in the same font size (Figures 7A and 7B). In the prior art, Kokunishi discloses the claimed element of: the movement information

including position information indicating relative positions of outline points of the pattern having a weight different from the predetermined weight relative to the positions indicated by the coordinate information (col.9, lines 33-62, "Even a stroke of a same class can have various edge-side shapes ... for example, the starting edge-side may be added with serif or not and the ending edge-side is a straight line or a curve."). Furthermore, Kokunishi teaches generating at least one of the outline points having different vector data in conjunction with weight value in the same character size (col.12, lines 1-12, where different vectors such as "bezier curve" is used for certain points.); It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have incorporated Kokunishi's invention into Seto, since Kokunishi explicitly provided the motivation in the disclosure by teaching that "the present invention ..provide[s] ...character patterns of high quality, while providing ...the feasibility of design change"). Given that, Kokunishi and Seto is different from the claimed invention in that Kokunishi does not show the path information of the "first vector data" or the "second vector data" indicating a moving path of the outline points, to be selected in conjunction with change of the weight.. Although Kokunishi suggests varying the moving-path of the points so that different design styles can be assigned to different weights (col.9, lines 33-62, "*Even a stroke of a same class* can have various edge-side shapes.." suggests that different stroke class usually have different variance in the shape.) , Kokunishi does not explicitly show the use of the "first" and "second" vector data in the prior art. However, varying the style of a character with respect to the scaling weight was well known technique in the art, as Sakurai disclosed a character forming invention "in which each vector character font is provided with an effective size range of character generation and with information on vector character font of a style to be used outside said effective size range, thereby enabling character output with an

optimum vector character font according to the character size (col.1, lines 45-50)."
Thus, it would have been obvious to a person of ordinary skill in the art at the time the
invention was made to have incorporated, in the invention of Seto and Kokunishi, the
means to vary the relative positions of the points with each other to vary the style based
on weight by assigning a plurality of vector data to each point, since Sakurai provided
the explicit motivation by teaching that it would have solved the problems in the prior art
(such as in Seto) that when "characters of all sizes are formed from a vector character
pattern of a same style, small characters are easily filled in and become illegible (col.1,
line 24)" and "[i]mage quality is deteriorated in a large character size, if the vector
character pattern is simplified in complex portion (col.1, line 33)."

As per dependent claims 129 and 130, Seto further teaches a printer for
generating the pattern of characters (col.4, line 28).

As per dependent claims 128, and 132, Seto does not explicitly teach that the
vector information indicates a straight line and a curve line with degree information,
wherein the degree information is second degree or higher. However, Kokunishi
teaches the feature. For the vectors describing the curve segment of the font character,
Kokunishi teaches that a cubic polynomial vectors are used (col.12, line 6, "...in FIG.5, a
bezier curve is used for interconnecting points... 617, 618 and 619, and a straight line is
used for interconnecting points 619 and 611."). It would have been obvious to a person
of ordinary skill in the art at the time the invention was made to have incorporated
Kokunishi's feature into that of Seto, since it was well known that fonts, in general,
include curved segments.

As per dependent claim 133, Seto discloses:

- wherein said degree information includes an information indicating that
coordinate data is constant regardless of change of weight value (col.6, lines 21-51;

also col.6, line 54, "All of the values of FX ..., the offset values of the contour points indicative of the additional outer shape can be uniform or can be limited to a few kinds of values ..."; also FIG.2B and col.5, lines 24-51 that shows the means for determining the zero movements, which is thus "constant".).
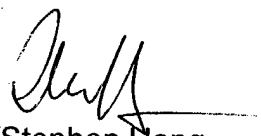
Response to Amendment

7.   Applicant's arguments filed August 13, 2003 have been fully considered but they
are not persuasive.

As pointed out in the rejections above, the added limitations have been
addressed with respect to the teaching of Seto, Kokunishi and Sakurai.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Stephen S. Hong whose telephone number is (703) 308-
5465. The examiner can normally be reached on Monday to Friday, 9:00am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Heather Herndon can be reached on (703) 308-5186. The fax phone
number for the organization where this application or proceeding is assigned is (703)
872-9306.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is (703) 305-
3900.

Stephen Hong
Primary Examiner
Art Unit 2178
July 12, 2004